Claims

1   An optical inspection apparatus for inspecting the
presence or absence of an object to be inspected that causes
optical changes such as white turbidity and white
sedimentation, or fluorescence for a sample charged in a
sample tube, including

a reaction block in which a plurality of arrangement
holes for standing and arranging sample tubes are formed, a
light emitting portion for irradiating an inspection light to
the respective sample tubes through observation holes formed
to the lateral surface or holes formed in the bottom of the
reaction block, an image pick-up camera for photographing each
of the sample tubes passing through the observation holes, and

an operation processing device for measuring the
optical change caused in the sample tubes based on the
luminance distribution or the chromaticity distribution of
image data photographed by the image pick-up camera.

2   An optical inspection apparatus according to claim 1,
wherein an inspection light is irradiated from the light
emitting portion through the holes formed in the bottom of the
reaction block to the respective sample tubes, and the white
turbidity and white sedimentation caused in the sample are
measured as the optical change based on the luminance

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distribution or the chromaticity distribution obtained in the image data.

3   An optical inspection apparatus according to claim 1, wherein an excitation light at a wavelength corresponding to a fluorescent material mixed previously with the sample is irradiated as an inspection light and the fluorescence caused in the sample is measured as an optical change based on the luminance distribution or the chromaticity distribution obtained in the image data.

4   An optical inspection apparatus according to claim 1, wherein the observation holes are formed on radial lines from the lens of the image pick-up camera to the respective sample tubes.

5.   An optical inspection apparatus according to claim 1, wherein the light emitting devices are disposed at the bottom to the respective arranged holes.